

that, at the same time can improve the service life of the rechargeable vehicle battery. The present invention uses a capacitor with a maximum value voltage greater than the maximum value voltage of a rechargeable battery. A transformer 2 is positioned between the capacitor 1 and the rechargeable battery 3 in order to discharge the capacitor from its maximum voltage to the maximum voltage of the battery in order to provide excess energy for a short period of time to effectively charge the battery and simultaneously increase the service life of the chargeable battery.

Claims 4 and 5 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite with respect to the term "maximally discharging." Applicants submit that the specification uses the words maximally discharging however, in order to be responsive, the term "maximally" has been eliminated from claims 4 and 5 by the above amendment. Additionally, the term "substantially exceeds" was indicated as being indefinite. Applicants submit that the term "substantially" is not an indefinite term as indicated by numerous court decisions when the term "substantially" is supported by some standard from measuring the degree intended within the specification. This is indicated in the MPEP at §2173.05 (b) §D. Claim 5 has been amended to refer to "substantially greater than" and the specification gives an example at page 5 wherein the nominal voltage of the capacitor 1 is larger than the nominal voltage of the battery approximately by a factor of 2. Therefore, it is submitted that claims 4 and 5 meet the requirements of 35 U.S.C. 112.

Claim 3 has been rejected under 35 U.S.C. 102 as anticipated by Kawaguchi et al. (U.S. Patent No. 5,793,189) as indicated at item 4 of the Patent Office Action.

Applicants respectfully traverse this rejection on the grounds that independent claim 3 provides a structure which is not shown or disclosed by the reference '189.

The reference to Kawaguchi et al. (U.S. Patent No. 5,793,189) is an apparatus for preventing over-discharge of batteries in an electric vehicle which uses a low voltage secondary battery 7 and a main battery 2. The main battery and the low voltage secondary battery are prevented from being over-discharged even when a main switch is left on through the use of a DC-DC convertor when the low voltage output is stopped when the output of the convertor is reduced to a value less than a specified range due to the reduction in the battery capacity of the main battery 2.

Applicants' invention specifically requires a capacitor having a maximum voltage greater than the maximum voltage of a rechargeable battery 3. The '189 reference does not have a capacitor. The main battery 2 is not the same as a capacitor and it would certainly not be obvious to substitute into Kawaguchi a capacitor instead of a main battery. A capacitor cannot by itself generate a voltage.

The reference to Kawaguchi is of the type of prior art discussed in the application at page 2, lines 15-20.

It must be emphasized that Applicants' invention provides advantages through the utilization of a capacitor having a higher maximum voltage than the voltage of the rechargeable battery using the process of independent claim 5 and the structure of independent claims 3 and 6.

Claims 4-6 have been rejected under 35 U.S.C. 103 as unpatentable over the same reference to Kawaguchi. As indicated above, Kawaguchi does not use a

• capacitor and it is not an obvious substitution. Furthermore, the reduction in voltage in the manner claimed is not the same as the reduction in voltage occurring in Kawaguchi. Primarily however, Kawaguchi does not use a capacitor having a maximum voltage greater than the maximum voltage of a rechargeable battery.

Therefore, in view of the distinguishing features between the claimed invention and the reference which features are not shown or disclosed or made obvious by the reference and in view of the sufficiency of the claim structure to meet the requirements of 35 U.S.C. 112, Applicants respectfully request that this application containing Claims 3-6 be allowed and be passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #951/48911).

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 1, delete the paragraph on lines 7 and 8 in its entirety.

Page 4, amend the paragraph between lines 15 and 18 as follows:

With a device for supplying electricity according to the invention, on the one hand, an energy excess which is available for a short time is effectively utilized and, on the other hand, a variable multivoltage electrical wiring is permitted.

IN THE CLAIMS:

4. (Amended) A device according to Claim 3, wherein said capacitor is [maximally] discharged until the voltage of said capacitor is equal to the value of the actual voltage of the battery.

5. (Amended) A method for supplying electricity to a motor vehicle, comprised the steps of:

providing a rechargeable battery having a nominal voltage;

providing an energy accumulator having a maximum voltage which is substantially [exceeds] greater than said nominal voltage;

[maximally] discharging said energy accumulator until the voltage of said accumulator is substantially equal to said nominal voltage of said rechargeable battery.